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THE ANTIBACTERIAL EFFICACY OF MAGNETIC MICROCOMPOSITES AGAINST ANTIBIOTIC RESISTANT STAPHYLOCOCCI

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Magnetic drug targeting refers to the attachment of therapeutics to magnetic particles and then applying magnetic fields to concentrate them to disease locations such as to solid tumors, regions of infection or blood clots. Magnetic micro composites can be targeted to the infection site using an external magnetic field against antibiotic resistant strains. In this study, magnetic micro composites were prepared in a well shaped spherical form with a defined size by the suspension cross linking technique for use in the application of magnetic carrier technology. The synthesized iron oxide magnetic material was used in the preparation of the magnetic micro composites. The antibacterial activity was determined by agar well diffusion method. The zone of inhibition was found to increase by 10-fold. Thus, magnetic targeting of magnetic micro composites constitutes a promising alternative for the treatment of infections associated by antibiotic resistant strains.

Biography

Gannu Praveen Kumar has completed his doctorate from Kakatiya University and M. Pharm from BITS, Pilani. He is currently working as a Professor and Principal in Sahasra Institute of Pharmaceutical Sciences since April 2004. He is the Advisor of few Pharmaceutical Companies. He has published more than 20 papers in reputed journals and has been serving as an Editorial Board Member of repute. He received Gem of India award in the year 1999. He visited London, Dubai, Singapore, Malaysia, Spain and USA as an Invited Speaker. He is serving as Chief Administrator in developing and implementing policies, programs, curriculum activities and budgets in a manner that promotes the educational development of each student and the professional development of faculty.

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